

REMARKS

Applicant wishes to thank Examiner Jolley for her very helpful comments presented on pages 2-4 of the Advisory Action mailed January 31, 2007.

Since the proposed Amendment filed January 11, 2007 was "not entered", the above claim amendments and new **claim 26** address the claims in the form in which they appeared at the time of the **final** Office Action of October 11, 2006.

Per the Advisory Action, the above amendments overcome the rejections under 35 U.S.C. § 112, second paragraph.

The "currently amended" claim 15 and **new claim 26** are the only independent claims presently pending in the application.

Applicant has carefully studied the Examiner's statement that "The Examiner notes that Applicant's arguments are not commensurate in scope with the claims".

Applicant incorporates herein by reference Applicant's still valid previous remarks regarding the rejections of the **independent claim 15** under 35 U.S.C. § 102(b) as being anticipated by Collin '080, and under 35 U.S.C. § 103(a) as being unpatentable (obvious) over Estelle '891 in view of Heide '818.

As previously explained, since claims 15 and 20 are **not readable** on Collin '080, the claims clearly are **not anticipated** by Collin. As for the rejections under 35 U.S.C. § 103(a), since the teachings of the applied references (including Collin, Estelle and Heide) do not teach, or even suggest, all of the limitations of the rejected claims, Applicant also respectfully requests

the Examiner to reconsider and withdraw the rejections under 35 U.S.C. § 103(a) for the reasons previously presented by Applicant and incorporated herein by reference.

With respect to the rejection of the currently amended claim 15 and **new claim 26**, Applicant respectfully requests the Examiner to consider the following **additional** analysis and arguments regarding the Collin reference.

Claim 15 has been amended in limitation b) to the effect that the pressure control valve 37 is disposed directly at (is located immediately on) the glue assembly 23. This is necessary because changes in pressure are to take effect immediately in the region of the nozzles. This is ensured by the arrangement of the pressure control valve at the nozzle unit. This is also disclosed in the specification, for example at page 6, first paragraph. This passage states that the pressure control valve 37 is arranged on the housing of the glue assembly or even within the glue assembly. Only in this manner is it possible to transmit a change in pressure directly to the glue discharged from the nozzles.

New **claim 26** contains the limitations of claim 15 and, in addition, the limitations a), b) and c) of claim 17, which replace limitation c) of claim 15.

As already described, the claimed **invention** relates to the application of precise glue areas to a carrier conveyed in cycles. The primary aim of the invention is to transfer glue to a continuous material web from which blanks provided with the glue areas are subsequently severed. The material web is conveyed in cycles, with a standstill phase following each glue cycle.

The gluing technology employed must be oriented toward this non-uniform movement of the carrier, i.e. the web. As can be seen from the graphics shown in Fig. 4 and Fig. 5 of Applicant's drawing, a minimum system pressure p_1 is constantly maintained in the process according to the claimed invention. In addition, the glue pressure is dependent on the conveying speed of the blanks or material web. But the time of opening and closing of the glue nozzles is independent of this. When the nozzle is opened, the effective glue pressure assumes a predetermined ratio to the current conveying speed of the material to which the glue layer is to be applied. If, as shown in Fig. 5, the gluing cycle is initiated at a low conveying speed, i.e., at the start of a conveying cycle of the web or blank, a proportionately lower glue pressure is delivered. As the conveying speed increases, the glue pressure rises accordingly. When a conveying cycle is brought to an end, namely when the conveying speed slows down, the glue pressure is reduced analogously.

The glue pressure implied by the plotted curves is, as described in the specification, a function of additional parameters, for example glue viscosity and, above all, the desired layer thickness of the glue areas. If so desired for a specific case in practical application, these can be modified during a gluing cycle. In this case, a correspondingly modified curve is plotted. The shape of curve 51 in Fig. 5 illustrates an example for a change in the pressure/time curve during a gluing cycle if a non-uniform layer thickness is to be generated.

The successful execution of the claimed process demands maintaining precise pressure control, namely a permanent adaptation of the glue pressure to the conveying speed, with the help of the pressure control valve 37. This valve 37 is permanently controlled during a gluing

cycle as a function of the effective conveying speed. According to new claim 26, this precise control of pressure with the help of the "pressure control valve" 37 is made possible with the assistance of a "compressed air" line via an "air control unit" 38. The latter is connected to the "machine control unit". New claim 26 defines this important interaction between the "pressure control valve" 37 and the "air control unit" 38.

The process defined in claims 15 and 26 is not taught, or even suggested, by Collin '080 alone or in any combination with the other cited references. Taking all circumstances into account, the apparatus shown in Collin simply is not suitable for executing the process according to the claimed invention, as will be explained below in detail.

First, the object of Collin differs from the stated object of the present invention. Collin aims at controlling the process involved in the opening and closing of the glue nozzles in such a way that the glue patches 8 are precisely formed with respect to their positioning and length. In Collin, individually specified factors, in particular the conveying speed, the inertia of the mechanical elements in the region of the nozzles, the inertia of glue flow, etc., are taken into account exclusively for the purpose of determining the time of opening and closing of the nozzles. During the application of glue, as described in Collin, no modifications are made. To provide an example from the extensive description in the Collin specification, note is made here of the details at the end of Par. 0003. Furthermore, this subject is described in Par. 0008. A particularly compelling passage in this regard can be found in Par. 0022 (right column). On the whole, the object is only that of determining the switching intervals for opening and closing the nozzles with respect to the position of the blank.

Collin also provides an apparatus having a source 11 of glue, glue pump 12 and pressure control valve 13. Based on the professional knowledge of Applicant, this merely symbolically represented unit is standard equipment in gluing assemblies.

In **Applicant's claimed invention**, the "pressure control valve" 37 is an additional unit which is capable of achieving the desired effect of the process only if the regulation of pressure occurs immediately in the region of the valves. The pressure control valve 37 is therefore disposed directly at the glue assembly 23. This means that the (adjustable) glue pressure is provided when the glue nozzles are opened.

Collin is not interested in this point. At no point in **Collin** is there even a suggestion of altering the glue pressure during a gluing cycle. The element 13 designated as an "adjustable pressure regulator" is employed to maintain a specific adjustable pressure during a gluing cycle.

The problem addressed by **Collin** is that, as can be seen in Fig. 1, the movement of the blanks is not sensed directly in the region of the glue assembly 14. Instead, a sensor 19 is located in the region of a following blank. This means that the following blank is scanned by the sensor 19, with the interval of opening and closing the glue nozzles 16 being calculated by the computer 17 so that the glue spot is positioned precisely on the blank when the latter is conveyed along under the glue assembly 14. Although the blanks in **Collin** are also conveyed in cycles, it is obvious the respective blank is transported in the region of the glue assembly at a predetermined speed. This speed, as well as the other parameters described in **Collin**, are taken into account (exclusively) for regulating the process of opening and closing the glue nozzles.

At no point does Collin describe that the glue pressure should change during a gluing cycle. By positioning the pressure valve 13 at a distance from the glue nozzles, a computer 17-generated adjustment of the pressure valve 13 cannot be transmitted in time to the glue being delivered at the nozzle. A sensitive regulation of glue pressure, as determined by the current conveying speed, is not possible – but also is not intended – in Collin.

Thus, Applicant respectfully submits that the independent claims 15 and 26 are neither anticipated by (readable on) Collin nor unpatentable (obvious) over Collin alone or taken in combination with any of the secondary references applied by the Examiner. For a rejection under 35 U.S.C. § 103(a), the applied references must teach, or at least suggest, all of the limitations of the rejected claims, which clearly is not the case here with respect to the claims rejected under 35 U.S.C. § 103(a), particularly the independent claims 15 and 26. It is respectfully submitted that Heide '818 simply does not provide or overcome the above-described deficiencies in Collin's disclosure.

As for the rejection of claim 15 (which has been amended to contain the limitations of the canceled claim 23 and further amended to recite "directly at the glue assembly") as being unpatentable over Estelle in view of Heide, Applicant incorporates herein Applicant's still valid previous arguments, and respectfully traverses this rejection (and also respectfully traverses the rejection insofar as it may be applied to the new claim 26).

That is, the Estelle/Heide combination does not disclose, or even suggest, all of the limitations of claim 15 and of the claims dependent thereon.

In this regard, Applicant notes the Examiner's statement, "The Examiner acknowledges that Estelle does not provide specific disclosure that a personal computer is used for input and control of the control programs".

In any event, the "currently amended" claim 15 and the new claim 26 contain limitations which are not taught, or even suggested, by the Estelle/Heide combination.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw the final rejections under 35 U.S.C. § 112, second paragraph, 102(b) and 103(a), and to find the application to be in condition for allowance with all of claims 15-22 and 24-26.

REQUEST FOR INTERVIEW

However, if for any reason the Examiner feels that the application is not now in condition for allowance, she is respectfully requested to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

Applicant files concurrently herewith a Petition (with fee) for an Extension of Time of two months. Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
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charged to Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.

Respectfully submitted,

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Date: March 8, 2007